

Harnessing Integrated Apps on the Mac - Science

March 5, 2009

Session 3

1. Open Safari (from Dock or Applications folder)

- Go to URL: <http://cffcollabday.wikispaces.com/Science>
- Select "Harnessing Integrated Apps on the Mac" link
- Complete the two initial surveys & return to the wiki page (control-click and open survey URL in new Tab or new Window)
- Click Session Files (from table of contents at top)
 - Click the first link, "RulerHigh.jpg;" the image will appear in the Safari window
 - Control-click (or right click with a two-button mouse) on the image
 - select "Add image to iPhoto library" from the context menu
 - click the Safari Back arrow to return to the wiki page
 - repeat for each of the Ruler images
- Click Science Links (from table of contents at top)
 - Open the first link, "How Things Fly: Bernoulli Brain-Teasers"
 - Control-click the first photo of a girl blowing across a strip of paper
 - select "Add image to iPhoto library" from the context menu
 - repeat for each of the first three photos
 - You are going to do one of these three demonstrations of Bernoulli's principle:
 - 10:20 (Session 2) -- Use Your Lips to Levitate
 - 12:10 (Session 3) -- Suspended in the Air Stream
 - 1:05 (Session 4) -- Balloons that Boggle

2. Open iPhoto (from Dock or Applications folder)

- Select Events
- Select all images collected
- Select File menu --> New Album from Selection and name it "Bernoulli"
- Keep iPhoto open

3. Open Photo Booth (from Dock or Applications folder)

- Take a still photo of each piece of equipment for use in demo
 - select single photo icon (far left in tool bar)
 - position the object in the window
 - click the red shutter button; wait for count down
 - repeat for each item depending on session
 - slips of paper, paper clips (Session 2)
 - straw, ping pong ball, funnel (Session 3)
 - balloons, string, water, funnel, straw (Session 4)
- Create movie of the demonstration
 - select movie icon (left of tool bar, right-most of three icons)
 - position the screen for your demo so the action will be recorded properly (do a little testing to be sure); don't move the screen or the laptop until finished

- click the Effects button (right side of tool bar)
 - select 4th page of effects (with Drag Backdrop Here squares)
 - position the Photo Booth and iPhoto windows so you can see both
 - find the 5 ruler jpg files
 - drag each onto a different block around the central “Normal” block
 - determine which ruler placement works best for your demo and click on it
 - move out of the screen as prompted
 - when you move back in, you will be in the foreground against the ruler background
- click the red shutter button; wait for the count down; perform the demo
- click the stop icon (gray square where the red shutter button had been - center of tool bar)
- Select the photo and click the iPhoto icon to add the movie to your iPhoto library
- Quit Photo Booth and iPhoto

4. Open GarageBand

- Create new Podcast (stills only; cannot use video in podcast track)
- Name it; Save to your Desktop or Documents folder
- Make sure the the LCD mode is set to Time (center of Tool Bar)
- Make sure the Podcast Track is selected (top track)
- Click the Media icon if the Media Browser is not already open (far right icon with notes)
- Select the iPhotos tab in the Media Browser (middle)
- Turn the iPhoto triangle in the list if it is not already expanded; select the Album you created in iPhoto
- Select one of your images (possibly the one you captured from the website associated with the Bernoulli demonstration you are doing) and drag it to the Episode Artwork pane (lower left)
- Double-click the image in the Episode Artwork pane to open the Artwork Editor
 - Adjust size slider to zoom in and out (be careful not to zoom in too far and pixelate the image)
 - Drag the image to position it in the viewer box
 - Click the Set button
 - Click File menu --> Save or Command-S
- Place a photo of one of the materials being used in the Podcast Track to begin at 15 seconds in the timeline
 - In the Artwork column in the Track Editor (click the scissors icon if it is not showing), double-click the thumbnail of the photo you placed above in the Podcast Track
 - Adjust size slider to zoom in and out (be careful not to zoom in too far and pixelate the image)
 - Drag the image to position it in the viewer box
 - Click the Set button

- Record vocal track
 - Click the Control menu and de-select the Metronome (good for keeping time when performing live musical tracks; bad for recording voice using the built-in mic that picks up everything around you)
 - Click the Male or Female Voice track in Garageband (make sure its color is highlighted)
 - Move the shuttle to 15 seconds in the timeline or where the first photo clip begins
 - Click the red Record button in the tool bar and begin reading the text clipping.
 - Describe the object and how it is used in the Bernoulli demo; try to keep this to 5 seconds or less for now
 - Stop by hitting the spacebar (clicking the red button stops recording but the play head keeps moving; you can also stop both by clicking the blue triangle, but you have to also move the cursor to do that)
 - Extend the photo as long as needed to fit with your vocal track (hopefully no more than 5 seconds)
- Add another photo and record vocal track; repeat for a third photo
 - At the end of the third photo vocal track, add something like the following:
 - “We are using these materials to demonstrate one aspect of the Bernoulli Principle.”
 - You should have a total of about 15 seconds of photos in the Podcast Track and narration in the Male or Female Voice track
- Add background music
 - Select the Jingles track and scroll to the beginning of the timeline
 - Click the Eye icon (second from left in tool bar) to show the GarageBand loops library
 - Place the cursor on the dark grey tool bar (not over an icon) so it turns into a hand; click and drag the tool bar upward as far as it goes to expand the Loops section
 - Click the Musical Notes icon (middle of three at bottom left of window)
 - Scroll through the alphabetical list to find “Jet Flying”
 - Drag it to the beginning of the timeline in the Jingles track
 - Click the Reset button (upper left in Loops)
 - Click the Cinematic button (4th column from left)
 - Find the “Borealis” loop and drag it UNDER the Jingles track to start at the 10 second mark in the timeline -- this will create a new Jingles track
 - Click the Reset button again
 - Click the FX button (near bottom left)
 - Find the “Airplane Landing” clip near the top of the alphabetical list and drag it to the first Jingles track about 15 seconds before the end of the Borealis clip in the second Jingles track (hopefully about 25 seconds in the timeline so it lines up with the end of your podcast and voice tracks)
- Click File menu --> Save or Command-S
- Export to File
 - Share --> Export Podcast to Disk...
 - Change Audio Settings to “Spoken Podcast” to minimize the file size

- Click the Export button
- Name the podcast file, but keep the .m4a extension; save on Desktop or in your Documents folder
- Double-click your .m4a podcast file to view it in iTunes
- Other options for the classroom
 - Post to Podcast server; publish in iTunes Store
 - Publish on web page using iWeb

5. Reflection and Evaluation

- How could GarageBand help students learn and demonstrate their understanding in Science?
- Complete the End-of-Session Survey